

THE ACOUSTIC CURVE: AND THE RISE OF THE RIVER.

Sir,—Will you allow a non-professional old man, albeit a little acquainted with the subject in former days, to dare set younger and professional men right.

Mr. Russell, at the Institute of Architects, explained a curve which he had discovered for the sectional arrangement of seats. Upon searching, he will find that Mr. Brooks arranged the seats of the theatre of the London Institution some thirty years since, upon such, or at least a similar system; and if my jaded memory be not treacherous, Mr. Tate set out the gallery seats of the Scotch church in Sidmouth-street, upon a like principle; and even I, in a fit of amusement, made the discovery of the concave line, agreeably to which they ought to be set out.

Is Mr. Russell aware that the Indian wise-men held, that there is some other medium than air by which the impulses of sound are transmitted? Some yet undiscovered agent, which allows us to hear a shrill bell through a massive wall,—a vast body which if set in motion by the bell at all, would doubtless produce a grave rather than a sharp sound.

Again, Mr. Higgin thinks that he is the first man who has discovered that the surface of the water of the Thames, together with its bed, has risen. Some forty years since I read, and I am not quite sure but it was in "Gwynn's Suggestions for the Improvement of London," a similar remark, and among the proofs adduced were the level of Westminster Hall, and the floats of the lime kilns at Nine Elms, at which place the larger portion of the lime was burnt for the rebuilding of London in 1666; those floats having been above the rise of the tide when constructed, but full 4 feet below when that work was published.

I recollect hearing Mr. Brunel say, that the deposit of the river is so thick, that they found one of their shovels had, by its own gravity, penetrated several feet (I am afraid to say twenty-five) below the present surface of the bed, and that they recovered it in their tunnelling. I had given to me an iron ball with a spike through it, which had been brought out from that tunnelling, and been met with at forty feet below the land-surface.

At the foot of the Southwark-bridge, in Upper Thames-street, I saw the remains of an old building with a window opening, of which the splayed joints and the interior of the walls were plastered with red tile mortar, and which had apparently been fitted for residence, into which the tide then rose six feet, although it is fair to assume that when first constructed it was high and dry.

It has often occurred to me, that the river walls had no original constructor—that is, they were not part of one grand, comprehensive undertaking, under some master mind,—but simply the off-hand expedients of persons under present exigency; but the former president of the Institution of Civil Engineers has said they were Roman works.

Not only has the river risen, but the land has risen, and will continue to rise; and builders ought always to bear in mind the trite maxim of ignorant impudence, "always take high ground," and follow it out, in a much better spirit, by taking care to go up one step too many, rather than form one too few.

I am, Sir, &c.,

BURBURY.

STOKE NEWINGTON INSTITUTE COMPETITION.—In reply to an advertisement which appeared in our pages, eighteen designs were forwarded to the committee. The committee, having classified them according to their respective merits, invited several gentlemen resident in the neighbourhood to a conference, with the view of making a selection of those best adapted to the object contemplated; three were selected, and ultimately a design by Mr. Francis Cross, architect, of Newington, was chosen. It is a plain but suitable building, with a Grecian Doric hexastyle porch, and includes a lecture-room, 60 feet by 35 feet; reading-room, 28 feet by 22 feet; library, 22 feet by 22 feet, and six other rooms. The estimated cost of the erection and furnishing is 1,500*l.*; but this sum, we fancy, will not be found sufficient. We did not see the designs which were submitted, and therefore can say nothing as to the justice of the selection.

THE GAS MOVEMENT.

Thus agitation spreads as it flows, increases as it rolls, and, like the swollen flood or the avalanche, will ere long carry all before it. New towns are ever being smitten with the contagion, leavened with the ferment, that has hitherto been working out a healthy alteration and reduction of the whole system to a normal and consistent state. We hope, says the *Leicester Journal*, transcribing one of our articles on the subject, that the natives of Leicester will be no less enlightened than those of Liverpool have lately been by the evidence adduced.

"This is no rash speculation," says the *Preston Guardian*, quoting that very evidence. "The proprietors of the Guardian Gas Company (who it will be remembered offer gas at 3*s.* 8*d.* per 1,000 cubic feet, with a profit to themselves of 7*s.* per cent.) are men of wealth and respectability, and their engineer (Mr. Cox, a practical gas manufacturer, who supplied gas at 1*s.* 8*d.* per 1,000 feet, and did not lose by it)—say who in the profitable manufacture of coke produced it at 'less than nothing,' bears a high reputation." The *Guardian* therefore calls upon the people of Preston and other Lancashire towns, to bestir themselves in order to obtain gas for at least 4*s.* 8*d.* per 1,000 feet, as a set-off to 3*s.* 8*d.* in the more extensively consuming, and hence it may be more cheaply provided, districts of Liverpool. The Preston Company, however, have the self-preservative cunning not to impose the "injustice and extortion of which we now complain" upon the few large consumers there, who would otherwise effectually displace the usual "exorbitant charges" by taking their own gas.

In Manchester, where the profits derivable from the sale of gas are expended for behoof of the inhabitants themselves in extensive and noble improvements, a pretty smart price is quite justifiable; but even there the price is far more moderate than where the pockets of a few monopolists alone are filled at the expense of a whole community. Under 200,000 cubic feet per year, the charge at Manchester is 6*s.* per 1,000; above 200,000 and under 400,000 feet per year it is 5*s.* 9*d.* per 1,000; and where the quantity used is 800,000 feet or upwards per year, the price is 5*s.*—The inquiries at Southampton have been further carried out by the examination of engineers and practical gas manufacturers and others. From the evidence, it appears that a suggestion of ours for the obviation of the nuisance of disturbing the carriage ways of roads is intended to be carried out by the new company, namely, to lay the pipes generally under or along the side or footways, wherever that is practicable. Mr. Croll, who has a patent for the use of chloride of manganese in the purification of gas, made some observations, in his evidence, on the metropolitan gas to the following effect:—Gas is becoming very generally used in private houses at the West-end; and within the last six months it has been introduced into several large houses at Tottenham. Several gentlemen have had it introduced into the drawing room, bed-room, &c., of their establishments, and in the neighbourhood of Finsbury-square it has recently been introduced into many large mansions. Since the reduction of price from 9*s.* to 7*s.*, within the last few years, the rentals of the several works have not diminished, and the use of gas has increased in consequence of the reduction of prices. From 20 to 30 per cent. of the houses at the West-end have had gas introduced into them; and in Finsbury-square twelve houses out of thirty-seven have it introduced into the sitting-rooms. There are a large number of detached houses about a mile from Coventry, in which gas is generally used in all the rooms, and it is frequently used for culinary purposes. Mr. Johnston, whose patent for the purification of gas by the dry way with sulphate of iron we sometime since noticed, was also examined, and in course of his evidence he stated that the residual products of his process, namely, sulphate of ammoniac, cyanide of iron, sulphuretted iron, and some oxide of iron, are so valuable, that he has offered to the companies adopting his plan to grant them a free licence, and to supply all the purifying materials, on condition of having the residual products.—The usual Government inquiries have been gone into at Dublin relative to the merits of the proposed Consumers' Gas Company there. The opposition by the

Hibernian Gas Company was grounded, of course, on the assumption that the proposed bill is unnecessary and uncalled for.

FOREIGN ARCHITECTURAL AND COL-LATERAL INTELLIGENCE.

Rewards bestowed on Professional Men in Prussia.—At the late Orders (Ordnung) Fest in Berlin, H. M. conferred on Mr. A. Humboldt the knighthood of the order of the Black Eagle,—a distinction never bestowed on science before. Mr. Schmidt, superior building director at Berlin, obtained the second class of the Red Eagle, with the oak-leaf. The knighthood of the same order was conferred on Professor Bekker; Buchholz, professor of R. A. of Arts at Berlin; Kellers, superior mining councillor; Köden, director of the Municipal Industrial School at Berlin; Auer, superior inspector of Rhine navigation, Mayence; Velt, historical painter at Frankfurt. The fourth class of R. E. received Mr. Schadow, jun., building court councillor at Berlin; Wolff, professor of Industrial Institute at Berlin. Besides these, Sir David Brewster, and Professors Le Verrier, Frahm, Madler, &c., obtained divers honourable distinctions.

Athletizing of the People in Germany.—Besides numerous works lately published on physical education (education physique)—an especially enlightening journal has just made its appearance, the *Turn-Zeitung*, or gymnastic journal, published by Prof. Schuch at Bruchsal. To all such demolishers of hospitals, infirmaries, dispensaries, &c., we give a hearty welcome.

St. Mark, at Venice.—It is one of the anomalies of our times, that this venerable pile, one of the chief representatives of Occidental and Oriental art, should have been hitherto without illustrations equal to its importance. Mr. and Mrs. Kreuz of Vienna, both artists of note, are engaged in accomplishing this desideratum. Twenty-one plates of elephant folio size will comprehend the whole riches, architectural and ornamental, of that cathedral. Amongst the mosaics, the splendid picture of the Virgin in the Grave, which is to be found in the atrium, at the left-hand side of the entrance, claims particular notice, although it is yet doubtful whether it belongs to Titus, Pordenone, or Salvati. H. M. the Emperor of Austria has ordered from the artists a coloured copy of all the plates made after the originals. Mr. K. is very accessible to strangers visiting Venice. As Mr. K. has studied St. Mark in all its details, an historical and art-essay written by himself will add to the value of this work.

H. M. the King of Bavaria—has appointed to the two vacant professorships at the R. A. of Munich, Mr. Charles Schorn (known by his great picture—the Anabaptists), and Mr. Maurice Schwind, of Frankfurt. It has excited general applause, that these two promising artists (one a foreigner) have been gained for the Munich art-world.

Art—a Moral Preceptor.—We are sorry to perceive that our French neighbours have taken from us the subject of a fine work on this topic, just published by Mr. Louis Demoreux, under the title "*La Peinture Précepteur Moral*." Speaking of Greuse, the most magnificent historical painter of domestic virtue, our author says, "If ever the works of a moralist, poet, or painter have exceeded his renown and reward, it is the case with Mr. Greuse. Deep-reprover in 'the Father's Malediction,' faithful historian in the picture of the Prodigal Son, he becomes an idyllic poet in the *Accordeur de village*."

Giessen.—These headquarters of Liebig—and therefore of German chemistry—will be placed in immediate communication with all parts of Germany, by means of a huge railway terminus to be erected there. The distance from London to Giessen is 51.

However incredible it may appear—the Catholic clergy of Rome have taken up the cause of railroads, and a religious periodical of that city has, of late, devoted four columns to the topic—"Quanto alla Morale ed alla Religione non il vapore applicato alle strade ferrate e alle pari." Another Roman periodical says the giant *Contemporaneo* (measuring 34 Italian palms in length), takes up railways as one of the most important material questions of the present epoch.